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SPECIFICATION FOR PATTERN LIFTING AND RAPPING PLATES

(First Revision)

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MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

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January 1987

Indian Standard

SPECIFICATION FOR PATTERN LIFTING AND RAPPING PLATES

(*First Revision*)

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(*Continued on page* 8)

Indian Standard

SPECIFICATION FOR PATTERN LIFTING AND RAPPING PLATES

(First Revision)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 27 January 1986, after the draft finalized by the Foundry Sectional Committee had been approved by the Structural and Metals Division Council.

0.2 This standard was first published in 1971. While reviewing this standard in the light of the experience gained during these years, the Sectional Committee decided to revise it. In this revision, mainly the material requirements have been modified.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers the requirements for pattern lifting and rapping plates for use in foundries.

2. APPLICATION

2.1 The lifting plates are bolted on the pattern and they accommodate the lifting pin or hook so that the pattern may be rapped loose and may be lifted manually or by machine (*see* IS : 6376-1971†).

---

*Rules for rounding off numerical values (*revised*).

†Specification for pattern lifting pins and hooks for use in foundries.

3. SUPPLY OF MATERIAL

3.1 General requirements relating to the supply of pattern lifting and rapping plates shall be as laid down in IS : 1918-1966*.

4. DIMENSIONS AND TOLERANCES

4.1 The shapes and sizes of the lifting plates shall be as given in Table 1.

4.2 Tolerances on dimensions as specified in Table 1 shall meet the requirements of 'coarse class' of IS : 2102 (Part 1)-1980†.

5. DESIGNATION

5.1 Lifting plates shall be designated by its length *l*, for example, a plate with 125 mm length shall be designated as:

Lifting plate 125 IS : 6378

6. MATERIAL

6.1 The lifting plates shall be manufactured from mild steel plates conforming to IS : 226-1975‡.

7. FINISH

7.1 The plates shall not have sharp edges and shall be free from harmful defects.

7.1.1 All important surfaces shall be reasonably smooth, if required, may be suitably machined.

8. COATING

8.1 Each pattern plate shall be suitably coated with a rust preventive paint, if desired by the purchaser.

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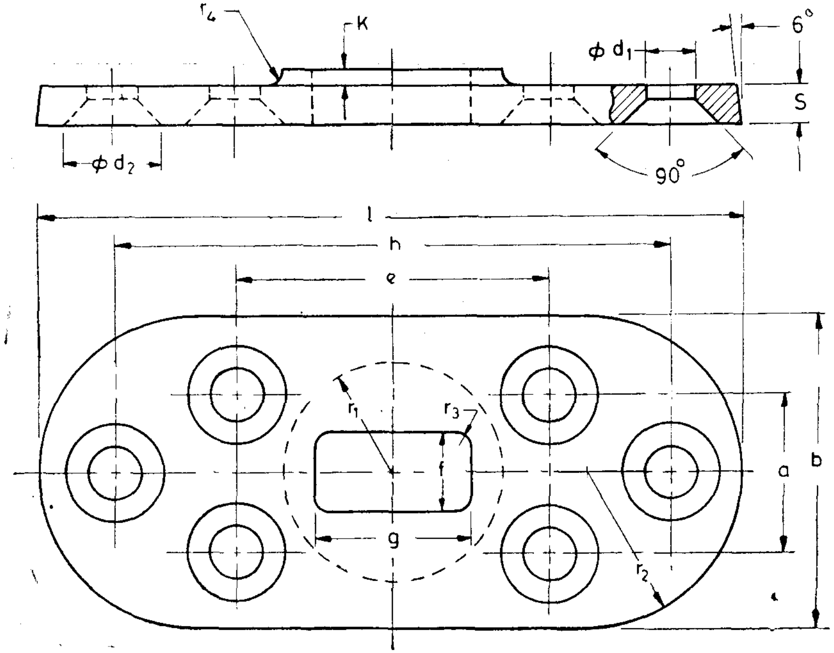
*Methods of physical tests for foundry sand.

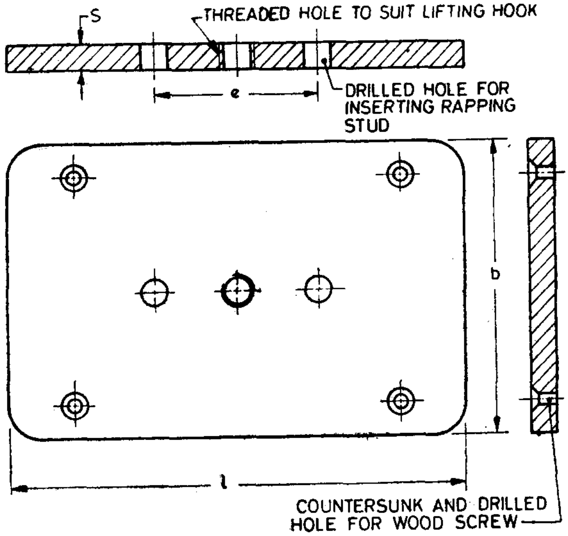
†General tolerances for dimensions and form and position: Part 1 General tolerances for linear and angular dimensions (*second revision*).

‡Specification for structural steel (standard quality) (*fifth revision*).

TABLE 1 DIMENSIONS OF PATTERN LIFTING AND RAPPING PLATES

All dimensions in millimetres.



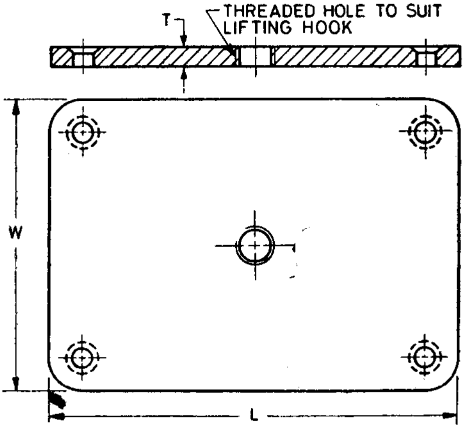

S
THREADED HOLE TO SUIT LIFTING HOOK
e
DRILLED HOLE FOR INSERTING RAPPING STUD
b
l
COUNTERSUNK AND DRILLED HOLE FOR WOOD SCREW

(Continued)

TABLE 1 DIMENSIONS OF PATTERN LIFTING AND RAPPING PLATES — *Contd*

l	a	b	S	d_1	d_2	e	f	g	h	K	r_1	r_2	r_3	r_4
90	20	40	5	6·4	12·4	40	10	20	71	2	14	20	2	2
140	45	90	8	10·5	20·5	50	14	28	100	3	20	45	4	4

NOTE — The details in the standard relate to the mounting of plates on the inside surface of the pattern.



L	W	T	No. of Screws
125	90	6	4
175	125	10	8

9. MARKING

9.1 Each plate shall be marked clearly with the manufacturer's name or trade-mark, manufacturing date and its designation.

9.2 The plate may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

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